



'Tremendous Success' of Open House Due to Efforts of Hundreds

A Note of Thanks to the Marshall Team

Thanks to all who made the Marshall Open House a tremendous success. Hundreds were involved in planning, preparations, and helping out Saturday as we threw the doors open to 15,000 visitors. The effort paid off. We greeted neighbors and supporters from the Tennessee Valley, Birmingham, Atlanta and beyond. We heard comment after comment thanking us for doing it and expressing wonder at all the great things we do here.

All in all it was a great day. Each of you who made it happen can be proud. The entire Marshall Team salutes you for a job well done.

Open House Event Leaves Visitors Asking for More

They came, they saw, they learned, they enjoyed, they want more. Thousands of visitors who attended Saturday's Open House at the Marshall Center were provided a wide assortment of activities, demonstrations and exhibits, prompting many to ask, "When will you do this again?"

Representing all ages, visitors seemed to enjoy the day designed to offer them a sampling from Marshall's past, a survey of present activities, and a look into the future. In addition, the Open House had enough in the "fun department" to satisfy everyone from the young to the young-at-heart.

Open House Chairperson Cedreck Davis said that — especially in light of Friday night's severe storm — the crowds that turned out were outstanding. "They really showed interest in what we at Marshall are doing. The visitors had a desire to learn more and more," said Davis.

Davis also expressed gratitude to Marshall employees and on-site contractors for the hospitality they, as volunteer workers, showed toward the public.

"The volunteers showed themselves to be great innovators by using ingenuity and excellence in their demonstrations of the many things that the Marshall Center provides daily for space transportation and for the betterment of our nation," said Davis. "The support and dedication surpassed our expectations."

One of the many popular attractions was at the Payload Crew Training Complex. Children were allowed to talk on the communication loops between the Aft Flight Deck of the Space Shuttle mock-up and the training control room, where they could serve as

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Mirrors Depart Center; AXAF Assembly Next

by Joy Carter

The high resolution mirrors of NASA's most powerful X-ray telescope were moved Monday from the X-ray Calibration Facility at the Marshall Center to TRW Space and Electronics Group in Redondo Beach, Calif., where the telescope will be assembled.

The mirror assembly, four pairs of precisely shaped and aligned cylindrical mirrors, will form the heart of NASA's next great observatory — the Advanced X-ray Astrophysics Facility. The telescope is scheduled to be launched aboard a Space Shuttle in August 1998.

The mirrors, departing Redstone Arsenal Airfield on an Air Force C-5 Galaxy — the largest U.S. aircraft, have been undergoing five months of intensive testing at Marshall to evaluate their performance and have demonstrated their superior capability over other X-ray telescopes.



Model rocket launches at Saturday's Open House were big crowd pleasers, as was beautiful weather. Other photos from the fun-filled event are on pages 3 and 4.

Marshall Scientists Among 36 Researchers Awarded Grants

by Peter Cobun

NASA has selected 36 researchers from 19 states and the District of Columbia to receive four-year grants worth \$2.8 million for microgravity biotechnology research. Research grants to Marshall-based scientists include Dr. Marc L. Pusey and Dr. Alexander A. Chernov of the Universities Space Research Association. Dr. Daniel C. Carter of New Century Pharmaceuticals in Huntsville, Dr. Pusey and Dr. Eddie Snell, a National Research Council Fellow with the Space Sciences Laboratory, are co-investigators with Dr. Chernov. Also, Dr. Krishnan K. Chittur and Dr. Franz E. Rosenberger of the University of Alabama in Huntsville were selected to receive biotechnology research grants.

This ground-based research will

continue to build the foundation for research on the Space Shuttle and International Space Station.

Sponsored by NASA's Office of Life and Microgravity Science and Applications in Washington, D.C., and managed by the Microgravity Research Program at the Marshall Center, this research is aimed at improving the understanding of physical and chemical processes in the areas of protein crystal growth, cell science and fundamental biotechnology.

The selection of 36 researchers adds to the 49 researchers already associated with the program managed by Marshall Center. Involved in microgravity biotechnology research since the early 1970s, Marshall Center administers the national microgravity biotechnology effort, providing the scientific, technical and

management expertise to successfully conduct spaceflight research. To perform that task, Marshall maintains a cadre of researchers in the Space Sciences Laboratory. Their work, in addition to being prominent research in the field, allows Marshall to be a "smart shopper" when dealing with other scientists and equipment developers through the world. They use a wide variety of experimental tools located in Marshall's Structural Biology Laboratory.

Ronald F. Porter, manager of NASA's Biotechnology Program at the Marshall Center, said, "Researchers selected for funding will have NASA's microgravity research facilities — drop-tubes, drop-towers, and aircraft flying parabolic trajectories — at their disposal. Their work may eventually lead to flight

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Kiessling Named S&MA Deputy



Edward Kiessling

Edward Kiessling has been appointed deputy director of Marshall's Safety and Mission Assurance Office.

Kiessling joined the Marshall Center in 1987 as an engineer in the Problem Assessment Branch in the Systems Safety and Reliability Office. In 1989 he became the lead engineer for the Problem Assessment Branch. In 1994, he was appointed director of the S&MA

Program and Institutional Support Office. Before assuming the role of deputy director of S&MA, he was director of the Systems Safety and Reliability Office.

U.S. Savings Bond Campaign Kickoff Scheduled for Thursday

Marshall's annual Federal U.S. Savings Bond Campaign Kickoff Ceremony is scheduled for May 15 at 1:30 p.m. in Morris Auditorium. John Helmke, Area Manager for the U.S. Treasury Department in Birmingham, will be the featured speaker. The Jacksonville State University Show Choir is scheduled to sing.

Series EE Savings Bond rates change the first of May and November each year. As of May 1, the new short-term rate increased to 4.63 percent and the long-term rate increased to 5.68 percent. Savings bond information will be passed out to Center employees during the campaign scheduled for May 19-30.

Public Service Recognition Week

Officials from President Clinton to Huntsville Mayor Loretta Spencer have proclaimed this week as Public Service Recognition Week.

The week, celebrated nationally, is a time set aside to educate Americans about the broad variety of services provided by the government and to show appreciation to public employment at the federal, state and local levels.

The Marshall Center will be one of several public service agencies that will feature a display at Madison Square Mall on Thursday.

The displays will allow the general public to see what types of services are provided by agencies such as NASA to better American life, according to Mary Rutledge of the Public Affairs Office.

Additionally, a public service essay contest is being conducted in Huntsville and Madison County schools.

TABES '97 is Coming May 12-15

The 13th annual Technical and Business Exhibition/Symposium (TABES) will be centered around the theme "Information Technology: A New Dimension." The conference, to be held May 12-15 at the Von Braun Center, will include speakers and exhibits that explore information technology as it relates to business, space, defense and education.

On May 13 from 2 to 4:30 p.m., Harry Craft, manager of Marshall's Technology Transfer Office, will address the topic "Information Technology: A Boost into Space," while Jim Bradford will speak on "NASA Acquisition Internet Service."

Marshall Open House Visitors Say 'Do it Again'



Open House attractions clearly were worth waiting for, this line indicates.



Neutral Buoyancy Simulator, Astronaut Mark Lee made for double-barreled attraction.

Coverage by Marshall Center Photographers



Visitors from Huntsville Opportunity Center get set to tour with Charles Scales.



Floating on air, a visitor gets unique ride at flat floor facility.



Sights of East Test Area prompted many to stop for closer look.



Mementoes of the day made Open House special for many.



"Sign here," a space fan asks Mark Lee.



Hotdogs, snacks and drinks restored energy during a full, busy day.



Many got to be "TV Stars" at Marshall's studio.



Space Sciences Lab visitors find high-energy astronomy can be fascinating.



Two "moon walking" astronauts captured on film.



Open House 'honchos' Cedreck Davis and May Wales got in the act too.

A Fun Day at the Open House

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"flight controllers."

"Liftoff" web site team members Patrick Meyer and Becky Bray scored points with parents by placing digitized pictures of their children on the Internet. The images could then be downloaded from their home or work computers.

At the Space Sciences Laboratory, Science Communication Coordinator John Horack commented after the event that "if we had had more people come through, we would not have been able to keep up with them. The volume of people we had was overwhelming. There was something for everyone."

Mark Boudreaux of the Space Shuttle Projects Office emphasized that, from his observation, good times were had by all.

"Everyone had smiles on their faces and the volunteers fed off the energy of the public," he said. "I only heard positive comments from all. It was a wonderful day."

Echoing Boudreaux's assessment, Assistant Programs and Projects Coordinator Paul Luz added that "at times you could almost feel the public's enthusiasm."

Summing up the day and the event designed to show appreciation to the public for many years of support, Center Director Wayne Littles said, "Everyone did a superb job. We owe them a debt. It was a grand day."

Microgravity Research Grants

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experiments aboard the Space Shuttle or Space Station."

A number of the studies involve cellular growth. To support cell science, researchers can simulate the microgravity conditions of space in NASA's bioreactor, using rotation to suspend cell cultures in a growth medium. This technique — successfully used to study cancer growth — improves our ability to grow cells and tissues outside the human body. Some researchers believe the best environment for growing cells is in space, where the lack of gravitational effects makes it easier to maintain a suspension of growing cells. Johnson Space Center will lead the support of cellular growth studies for Marshall Center.

Protein crystal growth research supported by NASA has important applications in medicine, drug design and agriculture. Proteins are complex biochemicals that serve a variety of purposes in living organisms. Crystals made of protein allow scientists to learn the molecular structure of proteins. Determining that structure will lead to a greater understanding of how organisms function. Knowledge of the structure also helps the pharmaceutical industry develop disease-fighting drugs.

Obituaries

Hutto, Ivey, 73, Oxford, Ala., died April 17. He retired from Marshall in 1979 where he worked as a program analyst.

Pitre, Gaston, 67, Huntsville, died March 30. He retired from Marshall in 1994 where he worked as an architectural technician.



Paul Teehan, Marshall employee located at the Kennedy Space Center Resident Office, was one of three employees recently honored as representing the "best of the best" in quality assurance awareness and continuous improvement initiatives for fiscal year 1996. Teehan receives his award from Jim Ehl, recently retired director of Safety and Mission Assurance.

National Health and Fitness Week Set for May 19-23

National Employee Health and Fitness Week, to be held May 19-23, includes the following planned Marshall Center activities:

May 20: "Open House" for the Marshall-NASA Exchange Fitness Center in Building 4752 from 11 a.m. to 1 p.m. The goal is to encourage employees to see what the program has to offer to them as well as their families. There also will be a badminton exhibition to promote the sport and revitalize the Badminton Club from 11:30 a.m. to 12:30 p.m. on the gym floor.

May 21: National Employee Health and Fitness Day Annual Walk led by Axel Roth.

Outdoor aerobics from 4:50 p.m. to 6 p.m. under the pavilion in the picnic area.

May 22: 5K Fun Run/2-mile walk at 11 a.m. Starts at Building 4752 parking lot.

Tug-O-War between NASA and Army at 5 p.m.

May 23: Rain date for Employee Health and Fitness Annual Walk. For more information, contact Joyce Eagan at 4-3996.



Air Force crewmen load the AXAF High Resolution Mirror Assembly into the cargo bay of an Air Force C5 for flight to TRW's Space and Electronics Group in Redondo Beach, Calif., where the telescope will be assembled.

Employee Ads

Miscellaneous

- ★ 1992 to present Prelude car cover, bra and moon roof, air deflector, make offer. 539-2951
- ★ Sheltie puppies. 757-5420
- ★ Country blue, cream and mauve sofa and loveseat \$250 for both. 306-0365
- ★ Golf clubs, lynx woods and irons, plus misc. with bag \$125. 882-6449
- ★ Hospital bed. 881-1981
- ★ Microwave oven has shelf meat probe \$35. 883-9107
- ★ Tomato cages made from concrete reinforcing wire six at \$3. 883-7926
- ★ Wolfe tanning bed paid \$2,200, will sale for \$1,500. 852-9131
- ★ 17" monitor P75 Processor 1.0 GB HD, 32 MG RAM, 4 x CD Rom, 32 bit sound card, 28.8 modem, windows 95 w/ microsoft office 7.0 \$700. 830-0238
- ★ JVC stereo with tape deck and CD player \$250. 830-0238
- ★ 1984 model boat 19 foot ebbtide bowrider, chevrolet engine with trailer \$3,000. 205-586-3539
- ★ Ladies 10 speed superb peugeot bike, not a mountain bike \$125. 539-0263
- ★ John Deere trimmer, just tuned up, \$50; weed eater blower, just tuned up \$50; ultra Vu II diving goggles \$50. 205-773-4461

Vehicles

- ★ 1994 Honda CBR-F2, 4666 miles, chrome pipe, alarm remote starter, seat cowl/bra, helmets \$4,500. 309-0461
- ★ 1986 Honda Accord LX, 4 door, air conditioning, reliable, needs painting \$3,500. 881-4505
- ★ 1987 Mercury Grand Marque 160K miles, runs \$1,200 o.b.o. 837-7382
- ★ 1995 Ford Explorer sport, red, one owner \$17,000. 830-1834
- ★ 1986 Honda Accord LX, 5-speed, 170K miles \$3,500 o.b.o. 830-4477
- ★ 1993 Chevrolet Beretta GT \$6,500. Call 534-6508 evenings
- ★ 1990 Jeep Cherokee Laredo, 4x4, 77K miles \$10,500 o.b.o. 851-2929

Vehicles

- ★ 1987 Ford Aerostar, 7 passenger retail \$4,725, wholesale \$3,500, asking \$3,400. 586-3061
- ★ 1984 Corvette, new paint, new tires \$10,500. 350-9920

Wanted

- ★ Volkswagen bug tow bar. 205-753-2583
- ★ Old wrist or pocket watches, running or not. 883-6969
- ★ 18 foot pontoon with trailer, used, in good condition. 615-937-6970

Lost

- ★ Black softball glove at Marshall's softball field, sentimental value, marginal utility. 922-0958

Free

- ★ Six month old lab mix puppy, black female, very friendly. 233-2755
- ★ Kittens 8 weeks old litter trained. 837-0996

Carpool

- ★ Carpool or pay for ride from Eva-Falkville area. 796-6934

Center Announcements

- ✦ **Souvenir Brochures**—Some commemorative souvenir brochures remain from Saturday's Marshall Open House event. They are available to all employees in Building 4200, Room G-11.
- ✦ **EAA**—The Huntsville Chapter of the Experimental Aircraft Association will hold its annual Fly-In on May 17 at 9 a.m. to 5 p.m. at the Moontown airport. It all begins with breakfast at 7:30 a.m. The Fly-In is free to the public, and there will be free plane flights for kids age 12 to 17 with parental permission. For more information call Paul Johnson at 539-2951 or pager at 219-4663.
- ✦ **AFGE**—The AFGE Local 3434 will hold its monthly meeting May 13 at 11:30 a.m. in conference room 4200, room G-13.
- ✦ **Toastmasters International**—Toastmasters will hold a special Alumni Day meeting May 13 at the 4610 cafeteria conference room from 11:30 a.m. to 12:30 p.m. All Marshall employees, contractors and friends are invited to attend. Refreshments will be served.
- ✦ **MARS Tennis Club**—All Marshall tennis players, family and retirees are invited to join the tennis club this year. All four courts are being resurfaced and leagues are about to begin (singles and doubles). You may join the Club and not participate in a league. For more information contact: David Reynolds (4-4579),

- ✦ Jack Beasley (4-0630) or B. Bowling (4-0453)
- ✦ **NARFE**—The National Association of Retired Federal Employees will meet May 10 at the Senior Center on Drake Avenue. The program "Living Trusts" will be presented by a representative from Estate Security Trust. Refreshments at 9:30 a.m. and program at 10 a.m. For more information call 837-0382 or 881-3168
- ✦ **NCMA**—The Huntsville Chapter of the National Contract Management Association will hold a breakfast meeting at 7 a.m. on May 15 at the UAH Tom Beville Center. Loretta P. Spencer, mayor of Huntsville, will be speaking on the topic "What's new in Huntsville." The cost is \$8 and the public is invited. For reservation call 533-3954 by May 12. Information on membership is available from P. Gunter at 881-0544.
- ✦ **EWS**—The monthly test of the Emergency Warning System will be held May 8 at 3 p.m. This is an audio test only. DO NOT evacuate to protective areas. If severe weather occurs at this time, the test will be rescheduled to a later date. Safety coordinators/monitors should send reports of malfunctioning speakers to AB11/Emergency Preparedness Officer, 4-5187.
- ✦ **Health Fair '97**—The Redstone Fitness Center located on Aerobee Rd, Bldg. 3705, will hold a Health Fair on May 8 at 10 a.m. to 2 p.m. Activities will include massage therapy, stress assessment, aerobics demo, bench press/bicep curl contest and much much more. Open to all Marshall employees and their families. For more information or activity schedule call Pat Mirandy at 4-7570.
- ✦ **Aerospace Symposium**—Marshall/Lockheed Martin will host the 31st Aerospace Mechanisms Symposium at the Huntsville Marriott on May 14-16. This symposium addresses problems of design fabrication, test, operational use of aerospace mechanisms, and a stimulating forum for technical interchange. To register or for more information call Pat Burrow, 544-7171 or Carl Foster, 544-7167.
- ✦ **No Smoking Policy**—During a recent safety inspection, evidence of some employees smoking inside buildings on the Center has been noted. All Marshall buildings are "smoke free." As stated in the memo distributed to all employees on May 8, 1991 smoking is prohibited in all Marshall owned buildings (both local and remote sites), taxicabs, administrative aircraft, and outside any building/work area where there is an inherent risk of fire or explosion. This policy was effective June 1, 1991 in an effort to provide a work environment that is as safe and healthy as possible for Center workers and visitors. As with any other personnel policy, violation of the "no-smoking" policy could result in disciplinary action.

MARSHALL STAR

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